

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-004933**Date Inspected:** 12-Dec-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name:	Wu Ming Kai			CWI Present:	Yes	No	
Inspected CWI report:	Yes	No	N/A	Rod Oven in Use:	Yes	No	N/A
Electrode to specification:	Yes	No	N/A	Weld Procedures Followed:	Yes	No	N/A
Qualified Welders:	Yes	No	N/A	Verified Joint Fit-up:	Yes	No	N/A
Approved Drawings:	Yes	No	N/A	Approved WPS:	Yes	No	N/A
				Delayed / Cancelled:	Yes	No	N/A
Bridge No:	34-0006			Component:	OBG		

Summary of Items Observed:

The Caltrans (CT) Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding and associated operations being performed for the Tower and Orthotropic Box Girders (OBG).

OBG Sub-Assembly Bay 1:

The QA Inspector randomly observed 2 ZPMC magnetic drill operators drilling bolt holes in U-Ribs U-234, U-235, U-236 and U-237 prior to forming.

The QA Inspector randomly observed ZPMC welder Jiang Mao Fang ID 067942, utilizing the Flux Cored Arc Welding (FCAW) Process with ZPMC Weld Procedure Specification (WPS) WPS-B-T-2133 in the 3F position, to weld 8 millimeter (mm) diaphragms into U-Ribs at Weld Joint (WJ) Numbers DP600-001-279 through 283. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welder Dong Yiqun ID 059450, utilizing the FCAW Process with WPS WPS-B-T-2233-TC-U4b-F in the 3G position, to weld 18 mm diaphragms into U-Ribs at Weld Joint (WJ) Numbers DP600-001-096, 106, 118, 129 and 140. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. Weld parameters appeared to comply with contract requirements.

OBG Sub-Assembly Bay 2:

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

The QA Inspector randomly observed that no contract work was being performed in this area.

OBG Sub-Assembly Bay 3:

The QA Inspector randomly observed ZPMC welders ID 054459 and ID 062447, utilizing the FCAW Process in 2F Position on Gantry 1 with ZPMC WPS WPS-B-T-2312-3, to weld I-Ribs to Deck Plate DP529-001 at WJ's 001/002 and 005/006. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 301/297 amps, 29.6/30.4 volts (001/002) and 296/291 amps, 30.1/30.4 volts with a travel speed of 470 mm per minute. Weld parameters appeared to comply with contract requirements.

OBG Sub-Assembly Bay 4:

The QA Inspector randomly observed ZPMC NDT Technician Xu Hai, utilizing the Magnetic Particle Testing (MT) Method to perform a final 100% MT examination on the cover pass of the fillet welds on Deck Plates DP533A Yellow Tag 002334 (SP533-001); DP532A Yellow Tag 002333 (DP532-001); a 10% MT examination on the cover pass of the fillet welds on Side Plates SP224A Yellow Tag 002337 (SP224-001) and SP225A Yellow Tag 002338 (SP225-001); Bottom Plates BP220A Yellow Tag 002453 (BP220-001) and BP221A Yellow Tag 002451 (BP221-001). There appeared to be no indications and ZPMC QC accepted all the welds on the above listed panels. The attached photograph provides additional detail.

The QA Inspector performed a 100% final Visual Testing (VT) and 10% MT verification on the cover pass of the fillet welds on Deck Plates DP532A Yellow Tag 002333/Green Tag 002449 (DP532-001), DP533A Yellow Tag 002334/Green Tag 002450 (DP533-001), Side Plates SP224A Yellow Tag 002337/Green Tag 002448 (SP224-001) and SP225A Yellow Tag 002338/Green Tag 002452 (SP225-001); Bottom Plates BP220A Yellow Tag 002335/Green Tag 002452 and BP221A Yellow Tag 002336/Green Tag 002451 (BP221-001). There appeared to be no indications and the QA Inspector accepted all the welds on the above listed panels.



Summary of Conversations:

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

As noted in the above body of this report.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Joshua Ishibashi, 13764710411, who represents the Office of Structural Materials for your project.

Inspected By:	Franco,Charlie
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Quality Assurance Inspector

Reviewed By:	Wright,Mark
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QA Reviewer
